

# AAR Reference Guide for Enterprise Architecture

For USDA Agencies

## 1 Performance Architecture

The Performance Architecture primary purpose is to develop IT performance information that can be used to improve decision-making and performance. This process has been identified through examining best practices and also builds from existing management processes that are relevant to the Performance Reference Model (PRM).

✓ Federal Enterprise Architecture,  
Performance Reference Model (PRM)

- This section references the FEA PRM which can be found at:  
[http://www.whitehouse.gov/omb/assets/fea\\_docs/FEA\\_CRM\\_v23\\_Final\\_Oct\\_2007\\_Revised.pdf](http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf)

✓ Performance Questions to Answer in  
Preparing Your AAR

1. Is the acquisition aligned to USDA's Strategic Plan?
2. Does the AAR describe how the acquisition aligns with USDA's and the Agency's Strategic Plan?
3. Are there defined measurements aligned to the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM) to check whether the business is lined up with the mission?
4. Does the acquisition identity performance information for the 4 required components of the PRM?
  - Mission and Business Results?
  - Customer Results?
  - Processes and Activities?
  - Technology?
5. Does the acquisition identify a performance gap?

## 2 Business Architecture

The Business Architecture represents the enterprise's work activities and assets. It shows what processes the USDA performs and provides a framework that allows IT to map its activities to business processes. Specifically, the Business Architecture answers the following questions concerning USDA's agencies and business processes: What do they do? Who does it? Which information? Where is it done? The business strategy typically defines what to achieve - the goals and drivers, and the metrics for success.

- ✓ Federal Enterprise Architecture, Business Reference Model (BRM) and link to the USDA Enterprise Architecture Repository (EAR)

- The BRM is a function-driven framework to describe the Lines of Business and Internal Functions performed by the federal government independent of the agencies that perform them. All IT investments are mapped to the BRM to identify collaboration opportunities. Guidance on the codes for the BRM primary mappings can be found at: [http://www.whitehouse.gov/omb/assets/fea\\_docs/FEA\\_CRM\\_v23\\_Final\\_Oct\\_2007\\_Revised.pdf](http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf)
- The Enterprise Architecture Repository (EAR) can be found at : <http://199.134.225.51/a3/userlogin.jsp>

- ✓ Business Questions to Answer in Preparing Your AAR

1. Is the acquisition aligned to USDA's Strategic Plan?
2. Does the AAR describe how the investment aligns with USDA's and the Agency's Strategic Plan?
3. Does the acquisition identify a primary mapping to the Business Reference Model (BRM) with Line of Business and associated Sub-function?
4. Are there verification and updates to the currently documented business strategy and plans, identifying the bridge between high-level business drivers, business strategy, and goals?
5. Are the specific business requirements that are relevant to the architecture development effort identified?
6. Is there justification of application software in terms of business support, such as business process efficiencies, program delivery improvements or customer effectiveness?

## 3 Data Architecture

This Data Architecture section of the AAR describes the data management and data architecture strategy and activities being performed within this investment. The focus is the data context, data definition, and data sharing sections of the Federal Data Reference Model (DRM) Version 2.0.

✓ Federal Enterprise Architecture, Data Reference Model, and Other Links

This section links to the FEA Data Reference Model:

[http://www.whitehouse.gov/omb/assets/egov\\_docs/DRM\\_2\\_0\\_Final.pdf](http://www.whitehouse.gov/omb/assets/egov_docs/DRM_2_0_Final.pdf)

Data.gov: <http://www.data.gov/>

✓ Data Questions to Answer in Preparing Your AAR

1. Are Data Architecture and Data Management addressed specifically?
2. Does the Data Architecture and Data Management activity significantly improve program data quality, management, and dissemination?
3. Does this acquisition reduce overall costs of ownership through control of unnecessary data duplication and redundancy?
4. Does this acquisition and/or support data reuse and sharing of existing resources?

## 4 Applications/Services Architecture

Currently under design is the USDA Application/Services Reference Model. The FEA Service Component Reference model is a business-driven, functional framework classifying Service Components with respect to how they support business and performance objectives. It serves to identify and classify Service Components that support federal agencies and their IT investments and assets. The model aids in recommending service capabilities to support the reuse of business components and services across the federal government

✓ Federal Enterprise Architecture,  
Service Component Reference Model

This section links to the FEA Service Component Reference Model:

[http://www.whitehouse.gov/omb/assets/fea\\_docs/FEA\\_CRM\\_v23\\_Final\\_Oct\\_2007\\_Revised.pdf](http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf)

✓ Applications/Services Questions to  
Answer in Preparing Your AAR

1. Does the application's development follow a USDA-recognized Software Development Life Cycle process?
2. Does the system's application(s) have the applicable, consistent, and correct corresponding CSAM Id, the CPIC investment UPI, and CIMR investment and system ids?
3. Does the AAR list the application's components by vendor, product, and programming development language?
4. Does the application produce or consume integrated and/or interoperable service types, data, or components useful to other applications of agencies within USDA and external to USDA?
5. Does the application provide *Data as a Service* to other applications of agencies within USDA, external to USDA, or the public?
6. Is the system or application hosted in an Enterprise Data Center? If not, are there plans stated in the AAR to migrate it to an EDC?

## 5 Technical Architecture

The Technical Reference Model (TRM) categorizes and lists the standards and technology products to support and enable the delivery of application service components and capabilities. It also unifies existing agency solutions and guidance by providing a foundation to advance the reuse and standardization of technology components.

✓ Federal Enterprise Architecture,  
Technical References

This section links to the Federal Enterprise Architecture, Technical Reference Model (TRM):  
[http://www.whitehouse.gov/omb/assets/fea\\_docs/FEA\\_CRM\\_v23\\_Final\\_Oct\\_2007\\_Revised.pdf](http://www.whitehouse.gov/omb/assets/fea_docs/FEA_CRM_v23_Final_Oct_2007_Revised.pdf)

✓ Technical Questions to Answer in  
Preparing Your AAR

1. Does the AAR's technology meet all of the applicable federal technology standards including Section 508?
2. Is the AAR's technical architecture reviewed and approved by the agency ISSPM and USDA Cyber security and comply with FISMA & Internal Control (Audits)?
3. Is the AAR's technical architecture reviewed and approved by the agency telecom staff and USDA Telecom Services Operations?
4. Are all the AAR's systems including their technical products (both existing and proposed) documented and up-to-date in the Agency and USDA Enterprise Architecture Repository?
5. Is this AAR system's technology included in the Agency and USDA target architecture and USDA Enterprise Transition Plan?
6. Does this AAR replace and retire any systems and technology?

## 6 Security Architecture

The USDA Security Architecture will integrate investment, system, and cyber security data in the Enterprise Architecture Repository (EAR). The EAR data is used to validate the system inventory data from the Cyber Security program. Under design now are the following:

- A web service to exchange data between the Cyber Security Assessment Manager (CSAM) and USDA enterprise architecture repositories.
- A TRM inventory in which any security-related hardware or software products will be included.

### ✓ Security References

The USDA Security Architecture Model and References will be made available upon completion.

### ✓ Security Questions to Answer in Preparing Your AAR

1. Are all of this acquisition's security solutions and products included in your Agency's and USDA's target enterprise architecture?
2. Has all of the related security architecture been reviewed and approved by your Agency's ISSPM and USDA Cyber Security?
3. Will the newly-created systems connect to, or exchange data with, any systems external to the investment's systems?